

ABSTRACT OF THE DISCLOSURE

A spacer, which is an atmospheric pressure resistant structure for a vacuum container, can be easily assembled, and the manufacturing costs that accompany the installation of the spacer are reduced.

A rear plate, which includes a substrate on which electron-emitting devices are mounted, is located opposite a face plate that is irradiated by electrons emitted by the electron-emitting devices, so that together these two units constitute one part of the vacuum container. A spacer is positioned as an atmospheric pressure resistant structure in the vacuum container. Blocks are bonded to both ends of the spacer, and with these blocks, the spacer is self-supported. Both ends of the spacer are tapered, and are used to reduce the stress that is imposed on the bottoms of the spacer and the blocks by the rear plate and the face plate while air is discharged from the vacuum container.